At Round Mountain, in southern Nevada, on August 12–13: Three houses and a hotel washed away.

On Rifle Creek, a small tributary of the Colorado River in Garfield County, Colo., on August 9: One life lost, a railroad bridge badly damaged, several highway bridges and a 60-foot section of highway washed out, considerable damage (chiefly to merchandise in basements) in the town of Rifle, and some livestock losses in the vicinity.

At Nogales, Ariz.-Sonora, Mex., on August 7: Two lives lost, 15 adobe buildings destroyed, 3,000 people rendered homeless, business houses flooded, electric power and telephone systems disabled. Damage estimated at several hundred thousand dollars, of which the greater part occurred in Sonora.

Owing to the continued dearth of rain in many sections, and the consequent continued fall in rivers, publication of a discussion of the effect of the drought on river stages is being deferred until some future issue of this REVIEW.

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
MISSISSIPPI DRAINAGE					
Canadian: Logan, N. Mex.	*Feet* 4	28	28	*Feet* 5.0	28
WEST GULF DRAINAGE					
Trinity: Dallas, Tex. (see note)	25	(1)	(2)	27.9	8
PACIFIC DRAINAGE					
Colorado: Parker, Ariz.	7	------	28	10.5	June 7, 17–20

[1] Continued from last month.
[2] Continued at end of month.
NOTE.—Continued high stage at Dallas, Tex., an artificial condition caused by a temporary dam necessary in levee work below gage.

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The outstanding feature of the month was the disturbance of tropical origin that was first reported on the daily weather map of August 25 as being central about 400 miles north-northeast of Porto Rico. However, reports received later by mail indicate that this storm was central near 21° N., 56° W., as early as the 22d. It apparently remained nearly stationary until the 25th, and was of comparatively slight intensity during this period.

Charts VIII to XIII cover the period from the 25th to 30th, and on Chart XIII the track of this storm is shown from the 22d to 31st.

The number of days with gales of extratropical origin did not differ greatly from the normal, as shown on the Pilot Chart, over the greater part of the ocean.

The number of days on which fog was reported in different localities is as follows: Over the Grand Banks, on from 11 to 14 days; along the American coast between the thirty-fifth and forty-fifth parallels, from 6 to 15 days; over the steamer lanes, between the twentieth and fortieth meridians, from 1 to 6 days; between the twentieth meridian and coast of Europe from 1 to 11 days.

Barometric data for several island and coast stations are given in the following table:

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, August, 1930*

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Julianehaab, Greenland	29.94	(1)	30.16	25th	29.58	20th.
Belle Isle, Newfoundland	29.95	[2]+0.06	30.28	24th	29.30	6th.
Halifax, Nova Scotia	30.01	[2] 0.00	30.28	30th	29.58	5th.
Nantucket	30.00	[3]−0.02	30.28	13th	29.74	10th.
Hatteras	30.01	[3]−0.03	30.24	13th	29.76	22d.
Key West	30.02	[3]−0.02	30.12	4th	29.84	21st.
New Orleans	30.03	[3]+0.01	30.14	4th [4]	29.92	20th.[4]
Cape Gracias, Nicaragua	29.92	[2]+0.03	29.98	5th [4]	29.86	15th.[4]
Turks Island	30.07	[3]+0.03	30.18	4th	29.96	26th.
Bermuda	30.08	[3]−0.06	30.30	4th [4]	29.60	26th.
Horta, Azores	30.19	[2]−0.01	30.15	15th	29.86	30th.
Lerwick, Shetland Islands	29.75	[2]−0.05	30.21	31st	29.18	14th.
Valencia, Ireland	29.88	[2]−0.04	30.32	31st	29.25	2d.
London	29.90	[2]−0.09	30.28	25th	29.47	3d.

[1] No normal available.
[2] From normals shown on Hydrographic Office Pilot Charts, based on observations at Greenwich mean noon, or 7 a. m., seventy-fifth meridian time.
[3] From normals based on 8 a. m. observations.
[4] And on other date or dates.

The first decade of the month was characterized by moderate weather over the ocean as a whole, except that on the 2d, 4th, and 5th moderate westerly gales prevailed along the coast of Europe, and on the 7th the station at Julianehaab, Greenland, reported wind southeast, force 9, barometer 29.76 inches, and there was apparently a well-developed depression over the region between Greenland and Newfoundland.

From the 11th to 19th moderate weather again prevailed over the greater part of the ocean, with the North Atlantic HIGH well developed, although on the 11th a LOW was over the Maritime Provinces, accompanied by moderate southerly gales between the fiftieth and sixtieth meridians, and on the 16th moderate gales were also reported between the fifteenth meridian and coast of Scotland.

On the 20th a LOW was central near 48° N., 18° W., with moderate gales between the twenty-fifth meridian and French coast; this moved rapidly eastward, and on the 21st was over northern Ireland, the storm area having diminished in extent and intensity. On the 20th there was also a depression off Hatteras that afterwards increased in intensity, remaining nearly stationary until the 22d, when the center was about 300 miles east of Nantucket.

As previously stated, the weather conditions from the 25th to 30th are shown on Charts VIII to XIII. The first observing vessel to note the tropical hurricane of this period, the approximate track of which is shown on Chart XIII, was the American steamship *Chincha*, Capt. H. J. Svenning; observer, William Sherwin. The *Chincha*, bound from Rio de Janeiro for Baltimore, came definitely within the influence of the hurricane on the 22d, when in latitude 21° 17′ N., longitude 56° 02′ W. At Greenwich noon of that date the barometer had fallen to 29.88 inches and the wind had backed from east-northeast to southwest and increased to force 7. The position of the vessel was therefore somewhere to the south and west of the storm center. Twenty-four hours later, when the *Chincha* had reached latitude 23° 24′ N., longitude 58° 22′ W., the wind had backed to east, indicating that the vessel had crossed the path at the rear of the center. Continuing on her course the *Chincha* reached latitude 27° 10′ N., 63° 16′ W. (D. R.), at Greenwich noon (7.47 a. m. L. M. T.), when it became apparent that the hurricane was recurving and approaching the vessel from the southward. The barometer now was 29.70 inches and the wind northeast, 10. At 3 p. m., local time, the ba-

rometer had fallen to 28.44 and the wind, still northeast, increased to full hurricane force. The decks were now awash under heavy breaking seas and some damage to superstructure being sustained. At 3.25 p. m. the vessel was hove to, head to sea. At 3.30 p. m. the wind shifted to southwest, force 12, barometer 28.36 inches; precipitous seas. From this time on wind and sea gradually diminished, and after being hove to for 18 hours and 35 minutes the *Chincha* was hauled back on her course.

On the morning of the 26th the hurricane passed near Bermuda, its course at that time being nearly due north, though continuing to recurve. By the morning of the 28th the center had reached latitude 41° 30′ N., longitude 55° W., and near here the French liner *Paris* was heavily involved. Captain Pugnet stated that the wind reached a velocity of 100 miles an hour and the barometer fell from 30.08 to 28.58 inches in a few hours. The storm report from the *Paris* is included in the table. According to press reports the ship was struck by one tremendous wave that smashed heavy glass along the port promenade and injured about 40 passengers, who were struck by flying glass.

From this time until the morning of the 30th the course of the hurricane was almost due east, and at Greenwich noon of that date it had reached longitude 22° 30′ W., still exhibiting hurricane strength. After this time, however, it lost energy and speed, and its course changed abruptly to the northward. It continued for some days as a disturbance of moderate intensity west of the British Isles.

The following report of a squall in the Florida Straits was received from Mr. W. P. Page, third officer, British steamship *Reventazon*, Capt. A. C. Woodhouse, from Tela, Honduras, toward Bremerhaven:

Monday, August 25, 9 p. m., Florida Straits, 23° 50′ N., 81° 35′ W.—Between 8 and 9 p. m. the sky gradually became overcast from all directions from west through north to east, with heavy black nimbus clouds giving every appearance of a heavy downpour of rain approaching. The wind was east-northeast, and at 9 p. m. it began to blow hard, and for an hour the wind was of force 9 to 10, in hot and cold blasts. The clouds broke up into dark patches of strato-cumulus clouds. The sea increased quickly to a rough sea. At 10 p. m. the clouds had blown over to the southwest in a dark black mass and the wind moderated as quickly as it had increased, backing to northeast, force 4. The squall was accompanied by vivid lightning. The sea moderated very quickly with the decrease in force of wind. The barometer was steady all the time at 29.80 inches (uncorrected). Air temperature, 83°; water, 83°.

OCEAN GALES AND STORMS, AUGUST, 1930

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN			° ′	° ′				*Inches*					
Polybius, Am. S. S.	Newcastle-on-Tyne.	New Orleans.	49 08 N	7 05 W	Aug. 1	11 p., 2	Aug. 3	29.33	SSE.	W, 10	WNW.	W, 10	
Reventazon, Br. S. S.	Avonmouth	Tela, Honduras.	49 00 N	10 50 W	Aug. 4	9 p., 4	Aug. 5	29.41	WSW.	SW, —	NW.	SW, 9	SW-W-WNW.
Sarcoxie, Am. S. S.	New York	Bordeaux	40 30 N	62 00 W	Aug. 20	7 p., 20	Aug. 22	29.84	NE.	NE, 7	SW.	NE, 9	NE-E-SSW.
West Cobalt, Am. S. S.	New Orleans.	London	49 30 N	12 00 W	do.	1 a., 20	Aug. 21	29.34	SSE.	SSE, 5	NW.	—, 10	SSE-S-NW.
Sulaco, Br. S. S.	Rotterdam	Jamaica	50 12 N	2 37 W	Aug. 21	7 a., 21	do.	29.47	SSE.	SSW, 8	SW.	S, 9	S-SW.
San Benito, Br. S. S.	Tela, Honduras.	Boston	36 40 N	72 50 W	do.	Mdt., 22	Aug. 23	29.62	NNE.	NNW, 10	NW.	NNW, 10	N-NW.
Chincha, Am. S. S.	Rio de Janeiro.	Baltimore	21 17 N	56 02 W	Aug. 22	2 a., 22	do.	29.70	SSW.	SSW, 10	E.	—, 10	SSW-S-E.
Viborg, Dan. S. S.	Cuba	New York	35 15 N	74 05 W	do.	4 p., 22	do.	29.17	S.	NNW, 10	NW.	NNW, 10	NE-NNW.
Schenectady, Am. S. S.	Copenhagen	Portland, Me	55 25 N	34 06 W	Aug. 23	7 a., 23	Aug. 24	29.54	W.	WNW, 7	WNW.	NW, 9	W-NW.
Chincha, Am. S. S.	Rio de Janeiro.	Baltimore	27 13 N	63 16 W	Aug. 25	Noon, 25	Aug. 26	28.36	NE.	—, 10	SW.	NE, 12	NE-SW.
Endicott, Am. S. S.	Galveston	Havre	38 50 N	62 32 W	Aug. 27	3 p., 27	Aug. 29	28.70	ENE.	N., 12	NW.	—, 12	ENE-N-NNW.
Reliance, Ger. S. S.	New York	Hamburg	40 58 N	57 15 W	do.	7 a., 28	Aug. 28	28.89	ENE.	N., 12	NNW.	N, 12	NE-N.
President Wilson, Am. S. S.	Gibraltar	New York	41 30 N	48 00 W	Aug. 28	6 p., 28	Aug. 29	28.67	S.	S, 12	N.	S, 12	S-W-N.
Paris, Fr. S. S.	Plymouth	do.	41 18 N	53 06 W	do.	11 a., 28	Aug. 28	28.49	SSW.	SW, 12	N.	SW, 12	
Steel Exporter, Am. S. S.	Avonmouth	Philadelphia	41 05 N	32 35 W	Aug. 29	2 p., 29	Aug. 30	29.37	S.	N, 12	N.	N, 12	
Effna, Am. S. S.	Rotterdam	Tampa	40 18 N	26 26 W	do.	11 p., 29	do.	29.48	SSW.	SW, 10	W.	SW, 12	SSW-SW.
West Hobomac, Am. S. S.	Avonmouth	New Orleans.	39 04 N	30 04 W	do.	6 p., 29	Aug. 29	29.40	SW.	SW, 9	WNW.	W, 11	SW-W.
Resolute, Ger. S. S.	Cherbourg	New York	48 27 N	22 50 W	do.	—, 29	Aug. 31	29.42	SE.	ESE, 8	NE.	SE, 10	SE-E-NE.
West Kyska, Am. S. S.	Antwerp	Gulfport	41 17 N	22 55 W	do.	4 a., 30	Aug. 30	28.77	S.	SW, 12	SW.	SW, 12	S-SW.
Iroquois, Br. S. S.	Thamesshaven.	Baton Rouge.	42 55 N	25 40 W	do.	—, 30	Aug. 31	28.78	S.	SW, 8	NNW.	S, 10	
NORTH PACIFIC OCEAN													
Havre Maru, Jap. S. S.	Los Angeles	Yokohama	40 50 N	152 10 E	Aug. 8	3 a., 9	Aug. 9	29.41	NNE.	NNE, 8	N.	NNE, 8	NNE-N.
Triumph, Am. M. S.	Kelung	San Pedro	25 30 N	128 45 E	Aug. 9	6 a., 10	Aug. 11	29.00	N.	NW, 10	S.	NW, 11	NNW-WNW.
Do.	do.	do.	42 30 N	172 00 E	Aug. 19	7 a., 19	Aug. 19	29.00	SE.	E, 12	SE.	E, 12	SE-E-ENE.
Pres. Monroe, Am. S. S.	Manila	San Francisco.	22 18 N	178 27 W	Aug. 18	8 a., 18	do.	29.73	NE.	E, 9	E.	E, 10	NE-ESE.
Toyama Maru, Jap. S. S.	San Francisco.	Balboa	17 24 N	102 48 W	do.	Mdt, 18	do.	29.63	NNE.	ESE	S.	ESE, 9	NNE-ESE.
Ohioan, Am. S. S.	Los Angeles	New York	19 30 N	105 30 W	Aug. 19	9 a., 19	do.	29.82	NE.	SE, 8	ESE.	SE, 9	NE-SE-ESE.
San Marcos, Am. S. S.	Balboa	San Pedro	15 30 N	99 32 W	Aug. 18	4 a., 18	Aug. 20	29.84	NE.	SE, 8	SSE.	S, 10	SE-S.
Stuart Dollar, Am. S. S.	Tabaco, P. I.	Los Angeles	44 37 N	167 07 E	Aug. 19	2 p., 19	do.	29.08	SE.	SE, 8	SSE.	SE, 9	N-SE.
Pres. Jefferson, Am. S. S.	Yokohama	Honolulu	34 20 N	154 50 E	Aug. 21	5 a., 22	Aug. 22	29.28	N.	ESE, 10	SE.	ESE, 10	E-SE.
Do.	do.	do.	32 18 N	160 00 E	Aug. 23	11 a., 24	Aug. 24	29.38	NE.	W, 6	SW.	NNW, 9	NW-SW.
Sylvan Arrow, Am. S. S.	San Francisco	Nagasaki	33 45 N	148 20 E	Aug. 19	4 a., 20	Aug. 20	28.80	ESE.	NE, 7	N.	N, 12	E-NE-N.
Courageous, Am. M. S.	Shanghai	San Pedro	41 40 N	141 15 E	Aug. 30	Noon, 30	Aug. 30	29.64	SSE.	S, 8	SSW.	S, 8	SE-SSW.
INDIAN OCEAN													
Fairfield City, Am. S. S.	Penang	Port Said	11 50 N	51 27 E	Aug. 11	8 a., 11	Aug. 11	29.74	SSW.	S, 8	S.	S, 8	SSW-S.
Do.	do.	do.	12 48 N	45 00 E	Aug. 13	6 a., 13	Aug. 13	29.58	SW.	SW, 9	NW.	SW, 9	SW-W.
SOUTH ATLANTIC OCEAN													
M. F. Elliott, Am. S. S.	Talara, Peru.	Santos, Brazil.	34 40 S	51 10 W	Aug. 21	7 p., 21	Aug. 21	29.58	ENE.	SSE, 10	NE.	SSE, 10	SSE-NE.